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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/327,708	06/08/1999	EARL HARDIN BOOTH	YO999-190	5804

35060 7590 03/28/2005

THE LAW OFFICE OF IDO TUCHMAN  
69-60 108ST., SUITE 503  
FOREST HILLS, NY 11375

EXAMINER

MIRZA, ADNAN M

ART UNIT PAPER NUMBER

2145

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/327,708	BOOTH ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Adnan M Mirza	2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-45 and 91-96 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-45 and 91-96 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. In view of the Appeal Brief filed on 10/02/2004, PROSECUTION IS HEREBY REOPENED. Non-Final Rejection set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-45 and 91-96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Golden et al (U.S. 6,563,793) and Lyes et al (U.S. 5,926,459).

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As per claim 1 Golden disclosed a method for representing interconnection of a plurality of elements on a network, the method comprising: providing a first catalog for a first subset of said elements, and providing a second catalog for a second subset of said elements (col. 5, lines 60-67); wherein a first element of each pair is taken from the first catalog and a second element of each pair is taken from the second catalog; and forming a connection representation for at least a subset of the pairs (col. 9, lines 60-67).

However Golden did not disclose in detail creating a matrix of connection cells formed by an intersection of a pair of elements.

In the same field of endeavor Lyes disclosed connections having cells that have been released for transmission by the calendar queue 63 are linked into a link list of connections that have cells ready for transmission on a transmit list (col. 13, lines 13-17).

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have incorporated connections having cells that have been released for transmission by the calendar queue 63 are linked into a link list of connections that have cells ready for transmission on a transmit list as taught by Lyes in the method of Golden to provide for more efficient and more effective traffic shaping mechanisms and processes for ATM switches and other routers that route traffic from multiple inputs to multiple outputs for time multiplexed output emission (col. 7, lines 57-61).

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3. As per claim 2 Golden-Lyes disclosed wherein at least one element is a catalog of sub-elements, and the method further comprises the step of including all sub-elements in the matrix (Golden, col. 8, lines 46-67).
4. As per claim 3 Golden-Lyes disclosed wherein the network is a communications network and at least a subset of the elements includes routers (Golden, col. 8, lines 1-9).
5. As per claim 4 Golden-Lyes disclosed wherein the network is an IP network and at least a subset of said elements have an IP protocol stack (Lyes, col. 10, lines 46-65).
6. As per claim 5 Golden-Lyes disclosed wherein at least one particular element in the first catalog is the same as a particular element in the second catalog (Lyes, col. 9, lines 1-11).
7. As per claim 6 Golden-Lyes disclosed wherein at least one of the catalogs includes a plurality of sub-catalogs (Lyes, col. 13, lines 18-31).
8. As per claim 7 Golden-Lyes disclosed wherein at least a portion of the network is a computer network (Lyes, col. 7, lines 65-67).
9. As per claim 8 Golden-Lyes disclosed wherein at least a portion of the network is a virtual network (Golden, col. 9, lines 1-9).

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10. As per claim 9 Golden-Lyes disclosed wherein at least a portion of the network is a network implemented using a layer above a physical layer (Golden, col. 9, lines 56-67).
11. As per claim 10 Golden-Lyes disclosed wherein at least a portion of the network is an overlay network (Golden, col. 9, lines 1-9).
12. As per claim 11 Golden-Lyes disclosed wherein at least a portion of the overlay network is an IP Sec network (Lyes, col. 10, lines 46-65).
13. As per claim 12 Golden-Lyes disclosed wherein at least a portion of the overlay network provides Quality of Service (Golden, col. 5, lines 29-36).
14. As per claim 13 Golden-Lyes wherein at least a portion of the overlay: network is an MPLS network (Golden, col. 20, lines 34-44).
15. As per claim 14 Golden-Lyes disclosed wherein the network includes VLANs (Golden, col. 9, lines 1-9).
16. As per claim 15 Golden-Lyes disclosed further comprising the step of configuring at least a portion of the network employing the representation (Lyes, col. 10, lines 46-65).

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17. As per claim 16 Golden-Lyes disclosed wherein at least a portion of one catalog is formed using combinatorial operations upon elements of other catalogs (Lyes, col. 15, lines 53-65).

18. As per claim 17 Golden-Lyes disclosed further comprising associating at least one task with at least one connection (Lyes, col. 10, lines 17-29).

19. As per claim 18 Golden-Lyes disclosed further comprising triggering at least said one task as a result of a change of state of said one connection (Lyes, col. 10, lines 17-29).

20. As per claim 19 Golden-Lyes disclosed wherein at least one of the elements is an abstract entity (Golden, col. 19, lines 50-59).

21. As per claim 20 Golden-Lyes disclosed wherein an element embodies the attributes of Quality of Service (Golden, col. 5, lines 29-36).

22. As per claim 21 Golden-Lyes disclosed wherein an element embodies the attributes of security (Golden, col. 22, lines 5-13).

23. As per claim 22 Golden-Lyes disclosed wherein at least one of the elements is a physical entity (Golden, col. 20, lines 35-44).

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24. As per claim 23 Golden-Lyes disclosed further comprising displaying at least one portion of the matrix (Golden, col. 8, lines 46-67).
25. As per claim 24 Golden-Lyes disclosed further comprising monitoring at least one portion of the matrix (Golden, col. 8, lines 46-67).
26. As per claim 25 Golden-Lyes disclosed wherein the matrix is structured such that elements of a row are different from elements of a column (Golden, col. 8, lines 46-67).
27. As per claim 26 Golden-Lyes disclosed wherein at a least a portion of the connections form a star network (Golden, col. 22, lines 13-18).
28. As per claim 27 Golden-Lyes disclosed wherein the matrix is structured such that elements on a the row are identical to elements on a column (Golden, col. 8, lines 46-67).
29. As per claim 28 Golden-Lyes disclosed wherein at a least a portion of the connections form a mesh network (Golden, col. 22, lines 13-18).
30. As per claim 29 Golden-Lyes disclosed wherein at least another element is a second catalog of sub-elements and the method further comprises the step of forming a sub-matrix of said one element with said another element (Golden, col. 8, lines 46-67).



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31. As per claim 30 Golden-Lyes disclosed further comprising employing a wizard to form at least a subset of the elements.

32. As per claim 31 Golden-Lyes disclosed further comprising initializing all connections to a connected state (Lyes col. 13, lines 6-17).

33. As per claim 32 Golden-Lyes disclosed further comprising employing a wizard to determine which connections to be brought to a connected state (Lyes, col. 13, lines 5-17).

34. As per claim 33 Golden-Lyes disclosed further comprising initializing all connections to a non-connected state (Lyes, col. 13, lines 5-17).

35. As per claim 34 Golden-Lyes disclosed further comprising choosing at least one pair upon which a manipulation is performed (Lyes, col. 6, lines 57-67).

36. As per claim 35 Golden-Lyes disclosed further comprising modifying at least one changeable attribute of the connection (Lyes, col. 6, lines 57-67).

37. As per claim 36 Golden-Lyes disclosed further comprising causing an inheritable change to be inherited by a group of inheritors (Lyes, col. 13, lines 5-17).

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38. As per claim 37 Golden-Lyes disclosed wherein a first element is a first gateway, a second element is a second gateway, and the attribute is setting a security policy, and the step of causing causes the security policy to be set at all elements included in the first and second gateway (Golden, col. 22, lines 5-13).

39. As per claim 38 Golden-Lyes disclosed wherein a first element is a catalog of sub-elements, and the attribute list setting a Quality of Service policy, and the step of causing causes the Quality of Service policy to be set at all sub-elements of the first element (Golden, col. 5, lines 29-36).

40. As per claim 39 Golden-Lyes disclosed wherein a sub-catalog includes other sub-catalogs (Golden, col. 5, lines 29-36).

41. As per claim 40 Golden-Lyes disclosed further comprising monitoring at least a portion of a network state in accordance with the representation (Lyes, col. 10, lines 16-37).

42. As per claim 41 Golden-Lyes disclosed further comprising displaying at least a portion of the network state (Lyes, col. 10, lines 16-37).

43. As per claim 42 Golden-Lyes disclosed wherein the step of displaying includes employing color codes for showing attributes (Lyes, col. 10, lines 46-65).

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44. As per claim 43 Golden-Lyes disclosed further comprising the step of modeling connections (Lyes, col. 13, lines 5-17).

45. As per claim 44 Golden-Lyes disclosed further comprising indicating changes in performance in response to an occurrence (Lyes, col. 13, lines 5-17).

46. As per claim 45 Golden-Lyes disclosed wherein a least one element of a particular pair is a sub-catalog, the method further comprising expanding elements of the pair into a sub-matrix (Golden, col. 8, lines 46-67).

47. As per claim 91 Golden-Lyes disclosed a method of representing on a display a connection representation, the method comprising: forming at least one catalog of data elements (Lyes, col. 13, lines 5-17); creating a matrix of catalog-elements for the data elements of at least one of said at least one data catalog; installing connections in the connection representation; and employing the matrix in a network action (Golden, col. 8, lines 16-23).

48. As per claim 92 Golden-Lyes disclosed wherein the network action includes an action taken from a group of actions including monitoring, problem determination, tuning and modeling (Golden, col. 8, lines 34-39).

49. As per claim 93 Golden-Lyes disclosed wherein at least one catalog of is a catalog of elements considered for interconnection by themselves (Lyes, col. 13, lines 5-17).

50. As per claim 94 Golden-Lyes disclosed wherein further comprising manipulating catalog elements to create at least one new catalog from a union for existing catalogs (Lyes, col. 13, lines 5-17).

51. As per claim 95 Golden-Lyes disclosed further comprising employing an operation taken from a group of operations consisting of: typing, ordering, adding, moving and deleting to and from one of from catalogs (Lyes, col. 13, lines 39-55).

52. As per claim 96 Golden-Lyes disclosed wherein the operation of typing is a catalog class taken from a group of classes consisting of: Endpoint catalog; Tunnel catalog; Encryption methods catalog; Encryption methods catalog; Validity catalog; Action catalog; and Traffic Loading catalog (Lyes, col. 11, lines 23-39).

*Conclusion*

53. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Adnan Mirza whose telephone number is (517)-272-3885.

54. The examiner can normally be reached on Monday to Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia Martin Wallace can be reached on (571)-272-6159. The fax for this group is (703)-746-7239.

55. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(703)-746-7239 (For Status Inquiries, Informal or Draft Communications, please label "PROPOSED" or "DRAFT");

(703)-746-7239 (For Official Communications Intended for entry, please mark "EXPEDITED PROCEDURE"),

(703)-746-7238 (For After Final Communications).

56. Any Inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-305-3900.

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Any response to a final action should be mailed to:

BOX AF

Commissioner of Patents and Trademarks Washington, D.C.20231

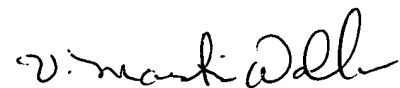
Or faxed to:

Hand-delivered responses should be brought to 4<sup>th</sup> Floor Receptionist, Crystal Park II,  
2021 Crystal Drive, Arlington, VA 22202.

AM

Adnan Mirza

Examiner



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